

ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION

(Deemed University), Indian Council of Agricultural Research
PanchMarg, Off Yari Road, Versova, Andheri (West), Mumbai-400061

Tel. No. 022-26361446/7/8

Fax No. 022-26361573 Web Site : www.cife.edu.in



BIDDING DOCUMENT



BIDDING FOR EQUIPMENTS



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INVITATION FOR BIDS

F.No. 36-08 /16-17/XIIth Plan Equip./P/

Dated: 20.11.2016

1. **The Director, Central Institute of Fisheries Education (Deemed University) (Indian Council of Agricultural Research), Ministry of Agriculture, Government of India** invites **SEALED TENDERS** from the reputed Indian/Foreign manufacturers or their accredited/sole authorized distributors/dealers for supply of the following equipment's **under single bid system.**

| Sr. No. | Particulars | Qty. | Sr. No. | Particulars | Qty. |
|---------|---------------------------------------|------|---------|--|------|
| | Aquaculture | | | FNBP | |
| 1. | Muffle Furnace (EFC) | 1 | 13. | Pulverizer / Grinding Mill (EFC) | 1 |
| 2. | Air Blowers (EFC) | 1 | 14. | Small scale sinking fish feed pelletizer (EFC) | 1 |
| 3. | Feed Dryer (EFC) | 1 | 15. | Respirometer (EFC) | 1 |
| 4. | Flame Photometer (Replacement) | 1 | | Powarkheda Centre | |
| 5. | Water Bath (Replacement) | 1 | 16. | D. O. Meter (EFC) | 1 |
| 6. | RO Treatment Plant 300 LPH (SDAE) | 1 | | Kolkata Centre | |
| | AEHM | | 17. | Rotary vacuum evaporator (Replace) | 1 |
| 7. | Water bath (EFC) | 1 | | Rohtak Centre | |
| 8. | Upright microscope | 2 | 18. | Electrophoresis unit (EFC) | 1 |
| | FGB | | 19. | Autoclave vertical (EFC) | 1 |
| 9. | Tissue Homogenizer (Replace) | 1 | 20. | Electronic balance (EFC) | 1 |
| | FRM | | 21. | pH and conductivity meter (EFC) | 1 |
| 10. | Incubator (EFC) | 1 | 22. | Student microscope (EFC) | 1 |
| | TSP | | 23. | PCR, AEHM (SDAE) | 1 |
| 11. | Field oxygen and pH meter (EFC) | 1 | 24. | Microcentrifuge (Proj) | 1 |
| | PHT | | 25. | Storage cabinet/refrigerator (Proj) | 1 |
| 12. | Tray packer (Proj) | 1 | 26. | Hot-air oven, AEHM (EFC) | 1 |
| 27. | Dehumidifier (AEHM, SDAE) | 1 | 28. | High speed refrigerated centrifuge (PHT, EFC) | 1 |
| 29. | Sonicator (PHT, EFC) | 1 | 30. | Water vapour permeability tester (PHT, EFC) | 1 |
| 31. | Oxygen permeability tester (PHT, EFC) | 1 | 32. | Digital water activity meter (PHT, EFC) | 1 |
| 33. | Tray sealing machine (PHT, EFC) | 1 | 34. | Muffle furnace (PHT, EFC) | 1 |

2. **The Director, Central Institute of Fisheries Education(Deemed University)(Indian Council of Agricultural Research), Ministry of Agriculture, Government of India** invites **SEALED TENDERS** from the reputed Indian/Foreign manufacturers or their accredited/sole authorized distributors/dealers for supply of the following equipment's in **two bid system i.e. Technical Bid & Commercial Bid.**

| Sr. No. | Particulars | Qty. | Sr. No. | Particulars | Qty. |
|---------|---|------|---------|-------------------------------|------|
| | AEHM | | | FNBP | |
| 35. | Real Time PCR (EFC) | 1 | 40. | Blood Gas Analyzer (EFC) | 1 |
| 36. | Ultracentrifuge (SDAE) | 1 | 41. | Bomb Calorimeter (Replace) | 1 |
| 37. | Microvolume spectrophotometer | 1 | | PHT | |
| 38. | Minus 80 deep freezer | 1 | 42. | Accelerated Freeze Dyer (EFC) | 1 |
| 39. | Bioinformatics workbench for NGS data (FGB, SDAE) | 1 | 43. | Texture analyzer | 1 |

3. Tender must be submitted in the original prescribed form separately for each equipment with rates for delivery at this office including all levies, taxes, installation etc, complete, if applicable duly addressed to the Director, CIFE, Mumbai-400 061 in a sealed cover superscribing as **TENDER FOR EQUIPMENT FOR THE YEAR 2016-2017** with the **Name of Equipment and Item No.**
4. The Tender documents containing terms & conditions may be obtained from the Purchase Section of CIFE, Mumbai-400 061 on any working day between **11.00 hrs to 16.00 hrs.** up to the last date of sale of Tender, on payment of **Rs.1000/- (Non-Refundable).** Also enclose **Earnest Money Deposit @ 2.5% of the tendered amount for items listed under single bid system or @ Rs. 15,000/- per equipment listed under two bid system** in the shape of Demand Draft/Pay Order drawn in favor of **"ICAR Unit CIFE,"** payable at, Mumbai. Tender documents complete in all respect should be submitted along with requisite EMD failing which tender is liable to be rejected. NSIC certificate will not be entertained for imported items. NSIC certificates of only manufacturers will be considered. **Tender fee is must for all.**
5. The Tender documents containing Terms & Conditions is also available on our web site: www.cife.edu.in which can be downloaded and submitted along with the cost of Tender documents of **Rs.1000/- (Non-Refundable)** separately for each equipment in form of D.D/Pay Order drawn in favor of **"ICAR Unit CIFE" Payable at Mumbai** along with **EMD as mentioned in Para 4** failing which tender shall be rejected. Tender fee is to be paid by NSIC holders.
6. For items listed under **two-bid system Technical Bid & Commercial Bid** should be sealed in separate envelopes and both the bids should again be sealed in a big envelope failing which it will be rejected. The Technical bid shall be opened on the date of opening of Tender. The date of opening of commercial bid of successful Technical bidder/bidder's shall be communicated separately. Details of 3 previous purchase orders to be provided.
7. FOB and CIF rates to be quoted for imported items.
8. Tenders received after the **DUE DATE and TIME** will not be accepted in any circumstances.
9. In no case request for blank Tender documents by post shall be entertained. The duly filled in tender form send by post received after due date and time shall not be accepted.
10. In case the date of issue/receipt of opening of Tender is declared as Holiday for unexpected reasons the tender will be issued/received/opened on the next working day at the same time. The tender documents are non-transferable. Director of the institute reserves the right to accept / reject any or all the tenders without assigning any reason thereof.
11. Amendments if any shall be published only on CIFE web site upto 7 days before the last date of submitting tender which may be watched by the perspective bidders for downloading and incorporating in the tender.

AAO (Purchase)



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F.No. 36-08/65-17/XIIth Plan Equip./P/

Dated: 20.11.2016

| | |
|--|------------|
| 1. Issue of tender document on | 20.11.2016 |
| 2. Last date for issue of tender document on | 15.12.2016 |
| 3. Date of Pre-bid Meeting | 05.12.2016 |
| 4. Acceptance of sealed tenders 13.00 hrs on | 15.12.2016 |
| 5. Opening of tender at 15.00 hrs on | 15.12.2016 |

Name of the equipment: _____

Item No. : _____

**TENDER FORM SHALL HAS TO BE PURCHASED AND
SUBMITTED SEPERATELY IN SEALED ENVELOPES.**

To,

M/s.
.....

Sub : Supply of Tender Form - reg.

Dear Sir,

With reference to your application dated _____, please find enclosed herewith tender form along with the detailed specifications receipt _____ Dated _____ for ` _____ for the supply of following equipment.

Kindly acknowledge the receipt of the same.

Yours faithfully,

AAO (Purchase)



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Invitation to Tender and instructions to Tenders
Also See Annexure
I, II, III, IV, V, VI

Tender No. _____

F.No. 36-08/16-17/XIIth Plan Equip./P/

Dated: 20.11.2016

Note: The envelope containing the tender as well as all subsequent Communication should be addressed and delivered to :-

Director,
ICAR - Central Institute of Fisheries Education
(ICAR - Deemed University)
PanchMarg, Off Yari Road,
Versova, Andheri (W), Mumbai - 400 061

All communications must be addressed to the Officer named above by Title only and not by name

To,

M/s. _____

Dear Sirs,

On behalf of the purchaser (Named in the schedule attached to tender form enclosed), I invite you to tender for the supply of the stores detailed in the said schedule. The conditions of contract, which will govern any contract made, are those contained in the general conditions of contract applicable to the contracts placed by Indian council of Agricultural Research and the Research Institute under it and the special conditions detailed in the Tender Form (and those attached herewith).If you are in a position to quote for supply in accordance with the requirements stated in the attached schedule, please submit your quotations to this office on the prescribed tender form attached.

2. EARNEST MONEY :

EMD of Rs. _____ (which is 2.5% of Bid Amount for single bid and Rs. 15.000/- for two bid system) should be enclosed along with the bid in the form of demand draft or cash may be remitted at the cash counter.

In no circumstances Government Promissory Notes, State Bank Pass Book or Cheque will be received with Tender as Earnest Money.

THE TENDER MAY NOT BE CONSIDERED IF THE EARNEST MONEY RECEIPT IS NOT SENT WITH THE TENDER. No request for transfer of any previous deposit of Earnest Money will be entertained.

It is understood that the tender document has been issued to the tender and the tender is being permitted to tender in consideration of the stipulation on his part that after submitting his tender, he will not resale from his offer or modify the terms and condition thereof. Should the tender fail to observe and comply with the foregoing stipulation the aforesaid amount will be forfeited to the Central Institute of Fisheries Education. In the event of the offer made by the tendered not being accepted, the amount of Earnest Money deposited by the tendered will be refunded to him after he has applied for the same in manner prescribed by Indian Council of Agricultural Research/Central Institute of Fisheries Education.

The Earnest Money Deposit of the successful Bidders is likely to be forfeited in case he fails to supply the Equipment/Stores or fails to submit Security Deposit as per Supply Order.

The Earnest Money should not on any account fall short of the amount actually required.

NSIC certificate will not be considered for imported items and only NSIC certificates of manufacturers will be considered.

3. SECURITY DEPOSIT:

The successful bidder will have to submit 10% of the amount of supply order excluding of Taxes etc. as Security Deposit in form of Bank Guarantee or Demand Draft before supplying the material.

The Security Deposit shall be released/refunded only after successful completion of Guarantee/Warranty period.

4. PREPARATION OF TENDER:

- (a) The Schedule to the tender form should be submitted in prescribe format only..
- (b) The Schedule to the tender form should be returned intact whether you are quoting for any item or not. Pages should not be detached but when items are not being tendered for the corresponding space should be defaced by some such words as "Not quoting"
- (c) In the event of space on the schedule from being insufficient for the required purpose, additional pages may be added. Each such additional page must be numbered consecutively, bear the tender Number & be fully signed by the tenderer. In such cases reference to the additional pages must be made in the tender from.
- (d) If any modification of the schedule is considered necessary, tenderer should communicate the same by means of a separate letter sent with the Tender.

5. SIGNING OF TENDER:

- (e) The Tender is liable to be ignored if complete information is not given there in or if the particulars and date (if any)/asked for in the schedule to the Tender are not fully filled in. Specific attention must be paid to delivery dates and also to the General Conditions of the Contract, as the Contract would be governed by them.
- (f) Individual signing the tender or other documents connected with a contract must specify whether he signs as: -
 - (I) A sole proprietor of the firm or constituted attorney of such sole proprietor.
 - (II) A partner of the firm if it be a partnership, in which case he must have authority to refer to arbitration disputes concerning the business of the partnership either by virtue of the partnership agreement or a power of attorney.
 - (III) Constituted attorney of the firm if it is a company.

N B. (A) In case of (ii) a copy of the partnership agreement or general power of attorney in either case attested by a notary public should be furnished unless the same has been previously furnished to Indian Council of Agricultural Research/Central Institute of Fisheries Education, or affidavit on stamped paper of all the partners admitting execution of the general power of attorney should be furnished.

(B) In the case of partnership firms where no authority to refer disputes concerning the business of the partnership has been conferred on any partner, the tender and all other related documents must be signed by every partner of the firm.

(C) A person signing the Tender Form or any documents forming part of the contract on behalf of another shall be deemed to warrant that he has authority to bind each other and if on enquiry it appears that the person so signing has no authority to be so the purchaser may without prejudice to other civil and criminal remedies cancel the contract and hold the signatory liable for all cost and damages.

(d) Each page of the tender, schedule to tender and annexure, schedule to tender and annexure, if any should be signed by the tenderer.

6. DELIVERY OF TENDER:

The original copy of the Tender is to be enclosed in a double cover. The inner cover should be sealed. **The outer cover should be superscribed in bold letters” Tender for the supply of**” **Right is reserved, to ignore any tender which fails to comply with the above instructions.** All outstation tenders should be sent by registered post. Only one tender should be included in one cover. Where more than one tender is included in a cover, all tenders so enclosed in one cover will be liable to be ignored.

7. LATEST HOUR FOR RECEIPT OF TENDER:

Unless otherwise specified in the schedule to tender, your tender must reach this office not later than 13.00 hrs. on the date of opening of the tender; Tenders sent by hand delivery should be put in the Tender box at this office located at New Campus in the Administrative Wing not later than 13.00 hrs. on the due date unless otherwise stipulated in the schedule to tender.

8. PERIOD FOR WHICH OFFER WILL REMAIN OPEN:

- (I) Firms tendering should note that it is desired that their offers should remain open for acceptance for 90 days from the date of opening of tender, If the firms are unable to keep their offers open for the specified period their tenders are likely to be rejected.
- (II) Quotations qualified by such vague and indefinite expressions such as “SUBJECT TO IMMEDIATE ACCEPTANCE, ‘SUBJECT TO PRIOR SALE’” WILL NOT BE CONSIDERED.

9. OPENING OF TENDER:

You are at liberty to be present or authorize a representative to be present at the time of opening of the tender at the time and date as specified in the schedule. The name and address of the representative who would be attending the opening of the tender on your behalf should be indicated in your tender please also state the name and address of your permanent representative, if any.

10. PRICES:

- I. (i) The prices quoted MUST BE PER UNIT SHOWN in the schedule and must specify separately all packing and delivery charges. Refunds on account of returnable packages (if any) are to be separately specified. Prices and refund must be clearly shown in figures and words in Indian currency or in foreign currency, if it is an imported equipment. Please quote the Indian agents commission if the equipment is imported, which will be paid in Indian Rupees after installation of the equipment.. All bank charges outside India will be borne by the tenderer. L.C. amendment charges will be borne by the tenderer.
- (ii) The price must be stated for each item separately. The percentage of reduction, in the total price for the entire demand should also be quoted, and order to that extent be placed with you.
- II. (i) If it is decided to ask excise duty, Octroi, sales tax or any other charges as extra, the same must be specifically stated in the absence of any such stipulation it will be presumed that the prices include all such charges and no claim for the same will be entertained.
- (ii) The price quoted by the tenderer should exclusive of sales tax (and should be clearly stated to be so), which will be paid by the purchaser, if legally livable at the rate ruling on the date of supply as specified in the Acceptance of Tender.

Please note CIFE is eligible for payment of custom only at concessional rates and fully exempted from payment of Central Excise Duty as per Govt. Notification No. 51/96-Customs dated 23 July 1996 and No. 10/97-Central Excise dated 01 March 1997 as amended from time to time respectively.

11. TERMS OF DELIVERY:

The delivery of stores is required by date (s) specified in the schedule to Tender. If however, it is not possible for tender to affect delivery by the date (s) you should specify the date by which you can guarantee delivery in prescribed schedule to the tender.

12. SAMPLES:

Tender samples are not required unless specifically called for

QUOTATIONS WITHOUT SAMPLES WHERE SAMPLES ARE SPECIFICALLY CALLED FOR ARE LIABLE TO BE IGNORED.

Samples of what you offer to supply should not be less than the quantity necessary for test as per specification, if any, or in the schedule to tender. In case the quantity of sample required for test is given either in specification or in the schedule to tender, this should be adhered to. Each sample should bear either in specification or in the schedule to tender:-

- (a) Your name and address.
- (b) Tender No.
- (c) Date of opening of tender.
- (d) Item No. against which tender submitted.
- (e) Any other description if necessary, written clearly on it.

The samples should be sent to the Officer to reach him by the date specified in the schedule. The cost & freight of sending the sample shall be borne by the tender & there will be no obligation on the part of the receiving officer for their safe custody. Tenders who do not submit the sample by the time specified in the schedule will run the risk of their tenders being ignored.

SAMPLES SENT 'FREIGHT TO PAY' WILL NOT BE ACCEPTED. The packages & the Railway Receipt should be addressed to the Inspecting officer or other officer concerned & nuds to 'self'.

If the samples are sent by Railway parcel, the Railway Receipt should not be enclosed with the tender documents but should be posted separately to the office to Whom the samples are sent (under a covering letter giving the necessary particulars to enable him to connect the Railway receipt easily with the parcel), Samples submitted by Tenders whose offers are not accepted (provided they have not been destroyed during testing) will be delivered to their representatives if they call for the same or can be returned to them at their cost provided the application for return is made to the officer to whom the samples are sent, within one month after the contract is placed on the successful tender, or after notification of cancellation of demand. If no application is received within the due date, the samples will be disposed of by public auction and the sale proceeds credited to council /CIFE (ICAR) Mumbai, India.

13. EXAMINATION OF PATTERNS OF CERTIFIED SAMPLE:

When sealed patterns of stores are mentioned in the schedule to the tender form, specification in these or certified samples thereof may be seen at the place stated in the schedule to tender and should be examined by a competent person on your behalf (who should take this invitation with him) before the tender is submitted.

14. PACKING:

Unless a method of packing is medicated in the specification or on the Schedule to the tender form the method of packing which the contractor proposes to employ must be described in the schedule to Tender Form. Contractors are at liberty to quote for additional alternative sizes and description of packs and these must be described in the schedule to tender.

15. RIGHT OF ACCEPTANCE:

This office does not pledge itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender or portion of the quantity offered and tender shall supply the same at the rate quoted. Tender is at liberty to tender for the whole or any portion or to state in the tender that the rate quoted shall apply only if the entire quantity is taken from the tender.

16. COMMUNICATION OF ACCEPTANCE:

Acceptance by the purchaser will be communicated by telegram, Fax, express letter of acceptance or formal "Acceptance of tender. In case where acceptance is communicated by telegram or express letter, the formal Acceptance of Tender, will be forwarded to tender, by registered post as soon as possible but the instructions contained in the telegram or express letter should be acted upon immediately.

17. RESERVATION OF RIGHT TO ORDER ADDITIONAL QUANTITY:

The purchaser reserves the right to place order on the successful tender for additional quantity (upto 25%) of the quantity offered by them at the rate quoted. Tenders are bound to accept if placed on them within six months from the date of issue of acceptance of Tender.

18. PRE-INSPECTION OF STORES BY THE SUPPLIER:

In case a contract is placed on you as a result of this tender, you should satisfy yourself that the stores are in accordance with the terms of the contracts and fully conform to the required specifications by carrying out thorough pre-inspection, such precaution on your part should minimize the chance of rejection in inspection and the consequences thereof.

For and on behalf of

ICAR - Central Institute of Fisheries Education
Indian Council of Agricultural Research
(Deemed University)
PanchMarg, Off Yari Road,
Versova, Andheri (W), Mumbai- 61

(Signature)



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GENERAL CONDITIONS OF CONTRACT APPLICABLE TO CONTRACTS PLACED BY THE INDIAN COUNCIL OF AGRICULTURAL RESEARCH OR THE INSTITUTES UNDER IT

GENERAL CONDITIONS OF CONTRACT

1. DEFINITIONS and interpretations:

- (1) In the contract the general and special condition governing it, unless the context Otherwise requires: -
 - (a) “Acceptance of tender” means the letter of memorandum communication to the contractor the acceptance of his tender and includes an advance acceptance of his tender.
 - (b) “Consignee” mean the persons to whom the stores are required by the acceptance of tender to be delivered in the manner therein specified.
 - (c) “Contractor” means the invitation to tender; instructions tenders, tenders tender acceptance of tender, particulars and the general and special conditions specified in the acceptance of tender and includes a repeat order which has been accepted or acted upon by the contractor.
 - (d) “Contractor” means the person with whom the contract is made and includes his heirs. Executors administrators or successors and permitted assignees, as the case may be.
 - (e) “Drawing” means the drawing or drawing or drawings specified in or annexed to the Schedule or Specification.
 - (f) “Council” means the Indian Council of Agricultural Research or the Institute etc. under its administrative control.
 - (g) “Inspector” means the person specified in the contract for the purpose of inspection of stores of work under the contract and includes his authorized representative.
 - (h) “Material” means anything used in the manufacture or fabrication of the stores.
 - (i) Particulars include :-
 - (i) Specification

- (ii) Drawing
- (iii) Pattern bearing the seal and signature of the inspector (hereinafter called the sealed pattern) which shall include also a certified copy thereof sealed by the purchaser for the guidance of the inspector.
- (iv) Sample sealed by the purchaser for the guidance of the inspector (hereinafter called the certified sample) which shall include a certified copy thereof sealed by the purchaser for the guidance of the inspector;
- (v) Trade pattern, that is to say a pattern, stores conforming to which are obtainable in the open market & which denoted a standard of the Indian Standards Institute or other standardizing authority or a general standard of the industry;
- (vi) Proprietary mark or brand means the mark or brand of a product which is owned by an industrial firm;
- (vii) Any other details governing the construction, manufacture or supply of stores as may be prescribed by contract;
- (j) “Purchase officer” means the officer signing the acceptance of tender & includes any officer who has authority to execute the relevant contract on behalf of the Purchaser ;
- (k) “Purchaser” means the purchaser named in the Schedule of acceptance to the tender & includes his successor or assignees;
- (l) (a) “Secretary” means the Secretary of Indian Council of Agricultural Research & includes any other officer of the Council or of any other body, Institution or Organization under the Administrative Control, of the Council, who has been authorized for the time being to execute relevant contracts relating to purchase of stores on behalf of the purchaser.

(b) Director means the Director of Central Institute of Fisheries Education, (ICAR), Versova, Mumbai, India.
- (m) “Schedule” means the Schedule annexed to the acceptance of tender.
- (n) “Signed” includes stamped, except in the case of an acceptance of tender or any amendment thereof.
- (o) “Site” means the place specified in the Schedule at which any work is required to be executed by the contractor under the contract or another place approved by the Secretary/ Director for the purpose.
- (p) “Stores” means the goods specified in the schedule which the contractor has agreed to supply under the Contract.
- (q) “Supply order” means an order for supply of stores & includes an order for performance or service.
- (r) “Test” means such test as is prescribed by the particulars or confided necessary by the Inspector, whether performed or made by the Inspector or any agency acting under the direction of the Inspector.

- (s) "Unit" & "quantity" means the unit & quantity specified in the schedule;
- (t) "Writing" includes matter either in whole or in part, in manuscript, typewritten lithographed, cyclostyled, or printed, or under or over signature or seal as the case may be;
- (u) The delivery of stores shall be deemed to take place on delivery of the stores in accordance with the terms of the contract, after approval of the Inspector to :-
 - (i) The consignee his premises or.
 - (ii) The consignee at the destination station in case of contracts stipulating for delivery of stores at destination station.
- (v) Words in the singular include the plural & Vice-Versa.
- (w) Words importing the masculine gender shall be taken to include the feminine gender & word Importing persons shall include any company or association or body of individuals, whether incorporated or not.
- (x) The heading of these conditions shall not affect the interpretation or construction thereof.
- (y) Terms & expression not herein defined shall have the meaning assigned to them in the Sale of Goods Act, 1930 or the Indian Contract Act. 1872 or the General clause Act 1897, as the case may be.

2. (a) PARTIES:

The parties to the contract are the contractor and the purchaser, named in the schedule.

(b) AUTHORITY OF PERSON SIGNING THE CONTRACT ON BEHALF OF THE CONTRACTOR:

A person signing the tender or any other documents in respect of the contract on behalf of the contractor without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the contractor. If it is discovered at any time that person so signing has no authority to do so. The Secretary may without prejudice to any other right or remedy of the purchaser cancel the contract and make or authorize the making or purchase of the stores at the risk and cost of such person and hold such person liable to purchaser of all costs and damages arising from the cancellation of the contract including any loss which the purchaser may sustain on account of such purchase. The provisions of clause 14 shall apply to every such purchase as far as applicable.

(c) ADDRESS OF THE CONTRACTOR AND NOTICES AND COMMUNICATION ON BEHALF OF THE PURCHASER:

(I) For all purposes of the contract, including arbitration there under, the address of the contractor mentioned in the tender shall be the address to which all communications addressed to the contractor shall be sent, unless the contractor has notified a change by a separate letter containing no other communication and sent by registered post acknowledgment due to the Director, CIFE. The contractor shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid.

(II) Any communication or notice on behalf of the purchaser in relaxation to the contract may be issued to the contractor by purchase officer and all such communications and notices may be served on the contractor either by registered post or under certificate if posting or by ordinary post or by hand delivery at the option of such officer.

3. AUTHORITY OF THE SECRETARY/DIRECTOR:

For all-purpose of the contract including arbitration proceedings there under, the Secretary / Director shall be entitled to exercise all rights and powers to the purchaser.

4. RESPONSIBILITY OF THE CONTRACTOR FOR EXECUTING THE CONTRACT:

(1) Risk in the stores: - The contractor shall perform the contract in all respects in accordance with the terms and condition thereof. The stores and every constituent part thereof, whether in the possession or control of the contractor, his agents or servants and the purchaser his agents or servants shall remain in every respect at the risk of the contractor until their actual delivery to the consignee/person specified in the schedule at stipulated place or destination. The contractor shall be responsive for all loss, destruction damage or deterioration of or the stores from any cause whatsoever while the stores after approval by the Inspector are awaiting dispatch or delivery or are in the course of transit from the contractor to the consignee/person named in the Schedule. The contractor shall alone be entitled and responsible to make claims against a railway administration or other carrier in respect or non-delivery, mis-delivery, destruction, damage or deterioration of the goods entrusted to such carrier by the contractor for transmission to the consignee.

(2) Consignee's right of rejection :- Notwithstanding any approval which the inspector may have given in respect of the store or any materials or the contract (whether with or without any test carried out by the contractor or Inspector or under the direction of the Inspector) it shall be lawful for consignee, to reject the stores or any part, portion or Consignment thereof within a reasonable time acute; devour thereof to him at the place or destination specified in the contract if such stores or part, portion or consignment thereof is any less, deterioration or damage before dispatch or delivery or during transit or/otherwise howsoever,

The provision contained in clause 17 relating to the removal of stores rejected by the purchaser's Representative shall MUTATIS MUTANDIS; apply to stores rejected by the consignee as herein provided.

(3) (a) SUBLETTING AND ASSIGNMENT:

The contractor shall not, save with the previous consent in writing of the Secretary /Director, Sublet, transfer or assign the contractor or any part there of or interest therein or benefit or advantage thereof in any manner whatsoever, provided, nevertheless that any such consent shall not relieve the contractor any obligation, duty or responsibility under the contract.

(b) CHANGE IN A FIRM:

(i) Where the contractor is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the Secretary/Director which may be granted only upon acceptance of a written undertaking by the new partner to perform the contract & accept all liabilities incurred by the firm under the contract prior to the date of such undertaking.

(ii) On the date of retirement of any partner of the contractor firm before complete performance of contract the Secretary/Director may at his option cancel the contract and in such case the contractor shall have no claim whatsoever to compensation against the purchaser.

(iii) If the contract is not determined as provided in sub clause (ii) above not with standing the retirement of a partner from the firm he shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under section 32 of the partnership Act has been sent by him to the Director High Security Central Institute of Fisheries Education.

(c) CONSEQUENCE OF BREACH:

Should the contractor or a partner in the contractor's firm commit breach of either of the conditions (a) or (b) (I) of this sub-clause, it shall be lawful for the Secretary/Director to cancel to contract & purchase or authorize the purchase of the stores at the risk & cost the contractor & in that event the provisions of clause 14 shall as for as applicable, apply.

(d) THE DECISION OF THE SECRETARY ICAR:

Director, CIFE to any matter or thing concerning or arising out of this sub-clause or on and any question whether the contractor or any partner or the contractor firm has committed a breach of any of the conditions in this sub-clause contained shall be final and binding on the Contractor.

(4) USE OF RAW MATERIALS SECURED WITH COUNCIL'S ASSISTANCE:

(1) Where any raw material for the execution of the contract is procured with the assistance of the Council by purchase or under arrangement made or permit, license, quote certificate or release order issued by or on behalf or under authority from the Council or by any officer empowered in that behalf by law or is issued from Council's stock and where advance payment are made to the contract to enable him to purchase such raw materials for the execution of the contract, the contractor:-

- (i) Shall hold such materials as trustee for the Council.
- (ii) Shall use such material economically and solely for the purpose of contract.
- (iii) Shall not dispose of the same without the previous permission in writing of the Secretary/Director; and
- (iv) Shall tender due account of such material and return to the Council at such place as the Secretary may direct all surplus or unserviceable material that may be left after the completion of the contract or its termination for any reason whatsoever.

(5) Where the contract is terminated due to any default on the part of the contractor the contractor shall pay all transport charges incurred for returning any material up to such destination as may be determined by the Secretary/Director and the decision of the Secretary/Director in that behalf shall be final and binding on the contractor.

(6) If the contractor commits breach of any of the conditions in this clause specified he shall without prejudice to any other liability; penal or otherwise be liable to account to the Council/ CIFE for all moneys advantages or profits accruing from or which in the usual course would have accrued to him by reason of such breach.

(7) Where the stores manufactured or fabricated by the Contractor out of the materials arranged or procured by or on behalf of the Council / CIFE, pay to the Council / CIFE, on demand the cost price or market value of such materials whichever is greater.

(8) QUOTATIONS OR RATES BY CONTRACTORS:

(I) The price quoted by the contractor shall not be higher than the controlled price fixed by law for the stores or where there is no controlled price, save for special reasons stated in the tender, be higher than the price usually charged by the contractor for stores of the same nature, class or description to a private purchaser.

(II) In the price quoted higher than the controlled price or where there is no controlled price, the price usually charged by the contractor for private purchase for the stores of the same of the same nature class or description, the contractor will specially mention this fact in his tender given reason for quoting higher price (s). If he fail, to do or make any misstatement, it shall be lawful for the Secretary/ Director:- (i) to revise the price at any stage so as to bring it in conformity with sub clause (I) above, or (ii) to terminate the contract and purchase stores at risk and the cost of the contractor and in that event the provision of clause 14 shall apply as for as applicable it the contractor has failed to deliver the stores within the period fixed.

(9) CORRUPT PRACTICES:

(i) The contractors shall not offer or give or agree to give to any person in the employment of the purchaser or working under the order of the Secretary/Director any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or airborne to do any act in relation to the obtaining or execution of the contract or another contract with the Council/CIFE (ICARI) Mumbai or for showing or for beating to show favour or disfavor to any person in relation to the contract or any other contract with Council/CIFE (ICAR) Mumbai. Any breach of the aforesaid condition by the contractor, or any one employed by him or acting on his behalf (whether with or without knowledge of the contractor) or the Commission of any offence by the contractor or by any one employed him or acting on his behalf under Chapter IX of the India Penal Code. 1860 or the Prevention of Corruption Act, 1974 or any other Act enacted for the prevention of corruption by public servants shall entitle the Secretary/Director to cancel the contract and all or any loss arising from such cancellation in accordance with the provisions of Clause 14.

(ii) Any dispute of deference in respect of either the interpretation effect or application of the above condition or of the amount recoverable there under by the purchaser from contractor shall be decided by the Director General, Indian Council of Agricultural Research or his nominee whose decision thereon shall be final & binding on the contractor.

10. INSOLVENCY AND BRAECH OF CONTRACT:

The Secretary/Director may at any time, by notice in writing, summarily terminate the contract without compensation to the contractor in any of the following events that is to say: -

(i) If the contractor benign individual or if a firm any partner thereof, shall at any time be adjusted insolvency or shall have a receiving order or order or order for administration of his estimate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effect or enter into any arrangement of his effect or enter into any arrangement or composition with his credits or suspend payment or, if the may be dissolved under the partnership Act, or

(ii) It the contractor being a company is wound up voluntarily or by the order of a court or a Receiver, liquidator or Manager on behalf of the Debenture holders in appointed or circumstances shall have arisen which entitled the court or Debenture holders to appoint a Receiver, liquidator or Manager, or

(iii) If the contractor commits any breach of the contract not herein specifically provided for: - Provided always that such determination shall not prejudice any right action or remedy which shall have accrued or shall accrue thereafter to the purchaser for any extra expenditure is thereby put to, the contractor shall under no circumstances be entitled to any again on repurchase.

11. ARBITRATION :

In the event of any question, dispute to deference arising under these conditions or any special conditions of contract, or in connection with this contract, (except as to any matters the decision of which is specially provided for by these or special conditions) the same shall be referred to the sole arbitration of an officer appointed to be the arbitrator by the Director General, Indian Council of Agricultural Research. It will be no objection that the arbitrator is a Govt. Servant/Council's Servant that had to deal with the matters to which the contract relates or that in the course of his duties as a Govt. Servant/Council's Servant he has expressed views on all or any of the matters in dispute or difference. The award of the arbitrator shall be final & binding on the parties to this contract.

In the event of the arbitrator dying, neglecting or refusing to act, or resigning being unable to act for any reason, or his award being set aside by the Court for any reason, it shall be lawful for the Director General Indian Council of Agricultural Research to appoint another in place of the out-going arbitrator in the manner aforesaid.

It is further a term of this contract that no person other than the person appointed by the Director General India Council of Agricultural Research as aforesaid should act as arbitrator and that, if for any reason that is not possible, the matter is not to be referred to arbitrator at all.

The arbitrator may from time to time with the consent of all the parties to the contract enlarge the time for making the award.

Upon every and any such reference, the assessment of the costs incidental to the reference and award respectively shall be in the discretion of the arbitrator.

Subject as aforesaid, the Arbitration Act, 1940 and the rules there under and any statutory modification thereof for time being in force shall be deemed to apply to the arbitrator proceedings under the clause.

Work under to contract shall, if reasonably possible, continue during the arbitration proceedings and in payment due to or payable by the purchaser shall be withheld on account of such proceedings.

The venue of arbitration shall be the place from which the acceptance note is issued or such other place as the arbitrator at his discretion may determine. In this clause the expression the "Director General, Indian Council of Agricultural Research" means the Director General, Indian Council of Agricultural Research for the time being & includes, if there be no Director General, Indian Council of Agricultural Research, the officer who is for the time being the administrative head of the Indian Council of Agricultural Research whether in addition to other functions or otherwise.

SPECIAL INSTRUCTIONS:

- (1) Purchaser: Central Institute of Fisheries Education, Versova, Mumbai India.
- (2) The stores are required by (time indicated in supply order). Please quote earliest possible guaranteed date by which you can offer supply.
- (3) Consignee : The Director, (CIFE) Mumbai
- (4) The tender must quote clear delivery terms indicating F.O.B. (Free on Board) F.A.S. (Free at ship port of export for imported stores & CIP destination/delivery at site/F.O.R. destination for indigenous as applicable. Incomplete tender is liable to be ignored.

(5) Conditions of contract as contained in Special/General conditions of contract & Schedule and annexure to the tender attached herewith.

(6) Tenders are bound to accept order for additional quantity (up to 25%) at the rate quoted only if order is placed on them within six months from the date of issue of Acceptance of Tender.

(7) In case the tender wants to furnish in separate covering letter any additional information particulars or quote conditions (e. g. those relating to allowance discount, rebate etc) which cannot be accommodated in the tender form an indication to that effect should be given in the tender form by means of note. In the absence of such indication in the tender form, the contents of the covering letter will be ignored in consideration of tender.

(8) Firms tendering should note that it is desired that their offers should remain open for acceptance for 90 days from the date of opening of tender, If the firms are unable to keep their offers open for the specified period their tenders are likely to be rejected

(9) Unattested amended figures overwritten figure will not be considered.

(10) (a) Where there is provision for payment of Sales tax, it will only be paid if registration number both under State and Central Sales Tax Rules/Act are specifically mentioned on the bill/invoice.

(b) Photostat Copy, duly attested a correct, of the Sale-tax declaration to the effect that firm is registered under the Sales-tax department, and

(c) 3-GA (5)' or 3/ga (2) Form, as the case may be, should be attached along with each bill or supply; otherwise the purchase tax as may be applicable, will be deducted from each bill of supply.

If the above requirement are not fulfilled and Photostat copy of registration certificate issued by the sales- tax Deptt is not attached with the tender form may not be accepted even though the rates may be the lowest.

MANUFACTURES NAME THEIR TRADE MARK AND BRAND, IF ANY, SHOULD INVARIABLY BE MENTIONED IN THE TENDER ILLUSTRATED LEAFLETS GIVING TECHNICAL PARTICULARS, OPERATION MANUFAL ETC, SHOULD BESENT ALONGWITH THE TENDER TO FACILITATE CONSIDERATION OF OFFER.

Dated _____

(Signature of the Tenderer)

ANNEXURE - I



ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION

(Deemed University), Indian Council of Agricultural Research

PanchMarg, Off Yari Road, Versova, Andheri (West), Mumbai-400061

Tel. No. 022-26361446/7/8, Fax No. 022-26361573 Web Site : www.cife.edu.in



TENDER NO.

Full name & address of the Tender, in addition to post Box No. if any, should be Quoted in all communications To this office.

1. Contractor's Telegraphic Address _____
2. Telephone No. _____
3. Fax No. _____

To,
THE DIRECTOR
ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION
(I.C.A.R.) DEEMED UNIVERSITY, PANCH MARG,
OFF YARI ROAD, VERSOVA, ANDHERI (W), MUMBAI – 400 061

Dear Sir,

I/ We hereby offer to supply the stores detailed in the schedule here to or such portion thereof as you may specify in the acceptance of Tender at the price given in the said schedule and agree to hold this offer open till _____ I/We shall be bound by a communication of acceptance dispatched within the prescribed time.

2. I/We understood the instruction to Tenders & Conditions of Contract included in General Conditions of Contract covering contracts placed by the Indian Council of Agricultural Research & research Institutes under if & in the Special Conditions of contract & have thoroughly examined the specification drawing & /or pattern quoted in the schedule thereof & /are fully aware of the nature of the stores of the stores required & my/our offer is to supply stores strictly in accordance with the requirements.

3. The following pages have been added to & form part of this tender _____

Yours faithfully,

(SIGNATURE OF TENDERER)

Address _____

Signature of witness: _____

Dated _____

Address _____



ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION

(Deemed University), Indian Council of Agricultural Research

PanchMarg, Off Yari Road, Versova, Andheri (West), Mumbai-400061

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ANNEXURE - II



ANNEXURE TO SCHEDULE TO TENDER (to be returned by Bidders along with the Tender duly signed)

1. GENERAL

Tenders should furnish a clear declaration as follows:

I/We declare that I am/we are:-

- (I) Manufactures
- (II) Manufacture's authorized agents.
- (III) Holders in stock of the stores tendered for.

(Strike out what is not applicable)

2. CONDITIONS OF CONTRACT.

Printed on cyclostyled or such terms & conditions of the tendering firms not appearing in the body of the tender, will not be considered as forming part of their tender. Tendering firms should, quote on the basis of the conditions of contract applicable to the Invitation to Tender are not acceptable to the tendering firms they should specifically state deviation there from the body of their tender.

3. PRICES :

- a) Prices must be in terms of new coinage system, via Rupees and Paise.
- b) The unit prices should be for the same units indicated in the schedule to tender inquiry and not any other unit.
- c) Prices quoted should be invariable for delivery Station of Destination in India & exclusive of charge as packing forwarding, freight insurance, excise custom, duty, Octroi etc where ever applicable, which should be indicated separately in clear terms as mentioned in item 9 of invitation to tender & instructions to tenders.
- d) Quantity discount, if any, should be indicated prominently.
- e) The F.O.R. Station of Dispatch Prices shall be deemed to include free delivery to the consignee situated within Municipal Corporation limits/radius of 10 kilometers from the firm's premises in case of local delivery.
- f) **Offers on firm price will only be accepted and multi quotation shall be rejected.**

5. CUSTOMS DUTY:

I. For imported stores offered against forward delivery, the tenders shall quote price thereto exclusive of custom duty. **The quotation shall specify separately the F.O.B. Price, C.I.F. Price & the custom Duty payable.** They will also indicate correctly the rate of customs duty applicable along with Indian Customers Tariff number.

II. In cases where all the tenders have quoted only for imported stores against forward delivery the tenders will be on prices exclusive of customers duty. In such cases, the amount of Customs duty as legally livable calculated with reference to the tariff value of the stores declared by the tenders in their tender, but not exceeding the actually paid, will be reimbursed to the successful tender.

III. Customs Duty actually paid, not exceeding the amount legally livable, will be provisionally reimbursed to the successful tender to the extent of 90% on production of relevant document (bill of entry etc.) along with advance payment of 90% that may be stipulated in contract provided that the said imported stores are delivered in full or before the date quoted in the contract and accepted by the Council/CIFE MUMBAI in case of delay in the delivery thereof, only 90% of the Customs duty as defined above will be subject to final adjustment on satisfactory completion of the supply stipulated in the contract, If is a specific condition of this Tender Inquiry that any increase in customs duty payable or paid by the successful tender due to the delivery of the said imported stores or part thereof alter the date of delivery stipulated in the contract shall not be reimbursed.

IV. If the purchaser is of the opinion that the Custom Duty has been wrongly assessed either because of wrong classification or any reason whatsoever, the supplier shall be bound at the request of the purchaser to pursue all legal reediest to challenge that assessment at the suppliers cost. If, as a result of such proceedings a refund is obtained, it shall be deposited forthwith by the supplier with the Director, CIFE Mumbai, India.

6. TRANSIT INSURANCE.

The purchaser will pay separately for transit insurance, in case of imported equipments only. The supplier will ensure that the entire stores contracted for arrive in good condition at destination.

The consignee will, as soon as possible, but not letter than 30 days of the date of arrival of stores at destination, notify the supplier of any loss or damage to the stores that may have incurred during transit,

7. PRICE PREFERENCE FOREARLIER DELIVERY :

It should be noted that if a contract is placed on a higher tender as a result of this invitation to tender in preference to the lowest acceptable offer in consideration offer earlier delivery the supplier will be liable to pay to the Council / CIFE Versova Mumbai the difference between the contract rate & that of the lowest acceptable tender on the basis of F.O.R., destination including all elements of freight, Sales tax local taxes, duties, & other incidentals in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract. This is in addition to & without prejudice to other right under the terms of the contract.

8. PAYMENT TERMS:

(I) For Domestic/ Indigenous goods /stores not requiring, installation & Commissioning, 100% payment shall be released on receipt and acceptance of goods and for goods requiring, installation & commissioning by the supplier 90% payment shall be released on receipt and acceptance of goods by the institute and balance 10% shall be released after successful installation, commissioning and demonstration by the supplier.

(II) For Imported Goods where installation, erection and commission are not the responsibility of the supplier 100% net FOB/FAS price shall be released against invoice, shipping documentations, inspection certificate (Where applicable), manufacturer test certificate etc. Cases where installation, erection and commissioning are the responsibility of the supplier 90% net FOB/FAS Price will be released against invoice inspection certificate (Where applicable), shipping documents etc. and balance after 21-30 days of successful installation and commissioning at the site and accepted by CIFE/ICAR.

(III) If payment is desired to be made to the Suppliers Bankers or other parties, the endorsement must be completed in the bill form & signed separately. & the word self-scored out in addition a power of attorney or transfer deed will be necessary in such cases conferring authority on the Bankers or the party concerned to receive payment on behalf of the contractor.

(IV) Payment shall be released by Cheque/ Demand draft by speed post within 30 days after acceptance of goods, installation, commissioning, Demonstration as the case may be to the Domestic / Indigenous supplier.

(V) For goods which are imported payment will be made by establishing irrevocable letter of credit (L/C) through S.B.I. Trade Finance CPC, TFCPC, Hallmark Business Plaza, 2nd Floor, Sant Dnyaneshwar Marg, Bandra (E) Mumbai. Or by Wire Transfer, after receiving material or proof of dispatching the consignment (i.e. Bill of lading/Airways bill, Packaging list, etc). In no case payment in advance will be made.

9. ADDITIONAL PARTICULARS TO BE FURNISHED BY THE TENDERER:

Tenders shall submit along with their tenders:-

- (i) Permanent Account Number along with photo state copy of PAN Card.
- (ii) Name & full address of their Banker.
- (iii) The equipment they possess for the manufacture of stores & for quality Control.

10. GUARANTEE/ WARRANTY:

The tenders shall furnish along with their quotations the under noted guarantee/ warranty.

- (i) Guarantee that they will supply spare parts if & when required on the agreed basis of or an agreed price. The agreed basis could be an agreed discount on the published catalogues or on agreed percentage of profit on the landed cost.
- (ii) Warranty to the effect that before going out of production for the spare parts they will give adequate advance notice to the purchaser of the equipment so that the latter may undertake the balance of the life requirements.
- (iii) The warranty to the effect that they will make available operation manual (s), the blueprints or drawings of the equipment/spares, if any, when required in connection with the main equipment.
- (iv) The contractor shall furnish the following warranty in case contract is placed on him :-

The contractor/seller hereby declares that the good/store, articles sold to the buyer under this contract shall be of the best quality & workmanship & shall be strictly in accordance with the specification & particulars contained/mentioned in the clause 8 of general conditions of contract applicable to contracts placed by the ICAR or Research Instt. Under it & sub-clause here & the contractor/seller hereby guarantees that the said goods/stores/articles would continue to conform to the description & quality aforesaid for a period of one year from the date of delivery of the said goods/stores/articles to the purchaser & that notwithstanding the facts that the Purchaser(Inspector may have inspected and/or approved the said good/stores/articles, if during the aforesaid period of one year the said good/stores/articles be discovered not to conform to the description quality. On such rejection the good/articles/store will be at the seller's risk & all the provision herein contained relating to rejections of goods etc. shall apply the contractors seller shall if so be called upon to replace within a period as may be extended from time to time by the purchaser in his discretion on an application made thereof by the purchaser & in such an event the above mentioned warranty period shall apply to goods/stores/articles replaced from the date of replacement thereof otherwise the contractor/seller shall pay to the purchaser such damages such damages as may arise by reason of the breach of the condition herein contained. Nothing herein contain prejudice any other right of the purchaser in that behalf this contract or otherwise.

11. JURISDICTION:

All questions disputes or difference under, out of or in connection with the contract if concluded shall be subject to the exclusive jurisdiction of the Court within the local limits of whose jurisdiction the place which the Acceptance of Tender is issued, is situated i.e. Mumbai.

Dated _____

(Signature of Tenderer)

ANNEXURE - III



ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION

(Deemed University), Indian Council of Agricultural Research

PanchMarg, Off Yari Road, Versova, Andheri (West), Mumbai-400061

Tel. No. 022-26361446/7/8, Fax No. 022-26361573 Web Site : www.cife.edu.in



ANNEXURE TO SCHEDULE TO TENDER

(to be returned by Bidders along with the Tender duly signed)

TENDERERS MUST GIVE SPECIFIC ANSWERS AGAINST EACH OF THE FOLLOWING QUESTIONS. TENDERS CONTAINING EQUIVICAL OR EVASIVE REPLIES WILL BE IGNORED

1. Whether stores offered conform to particulars quoted in the schedule: if not, details of deviations must be stated here.
2. (I) Brand
(II) Name & Address of manufacture:
(III) Station of manufacturer
3. Guaranteed date by which delivery can be completed.
4. **PACKING THAT IS PROPOSED TO BE EMPLOYED.**
Whether specification packing will be adhered to:
5. Whether sample submitted.
 - (1) Stock in hand at the Present time consist of
 - (a) (Held by us _____)
 - (b) Held by M/S _____ over which we have secured an option
 - (2) Stock enrouted to India.
 - (3) If the stores offered are manufactured in India whether all the raw materials, components etc., used in their manufacture are also produced in India. If not give details of materials components, etc. that are imported and their countries of origin. A clear up of the indigenous and imported components together with their value and the proportion it bears to the total value of the stores should also be given.
6. Raw materials are held in stock sufficient for the manufacture of
7. (I) State specifically whether the price tendered by you is to the best of your knowledge and belief , not more than the price usually charged by your for the stores of the same nature, class or description to any private purchaser domestic or foreign, as well as purchaser Government, Autonomous Organization etc. If not, state the reason thereof and also indicates the margin difference.

(II) In respect indigenous stores for which there is controlled price fixed by law, the price quoted shall not be higher than the controlled price. If the price quoted exceeds the control price the reason thereof shall be specifically stated.
8. Business name constitution of tendering firm registered under :-
 - (i) The Indian companies Act 1956
 - (ii) The Indian Partnership Act 1932 (Please give the names of parties).
 - (iii) Any Act, if not, who are the owners (Please give full names).

9. Do you agree to the arbitration clause stipulated? (Your acceptance or not acceptance on this clause will not influence the decision of the tender. It should however, be noted that an omission to answer the above question will be deemed as an acceptance of the clause).

(FOR PARTNERSHIP FIRMS WHETHER REGISTERED OR NOT REGISTERED UNDER INDIAN PARTNERSHIP ACT 1932)

Should the answer to this question by a partnership firm be in the affirmative, please state further

(a) Whether by the partnership agreement authority to refer disputes concerning the business of the partnership to arbitration has been conferred on the partner who has signed the tender.

(b) If the answer to (a) is in the negative, whether is any general power of attorney executed by all the partners of the firm authorizing the partner who has signed the tender to refer dispute concerning business of the partnership to arbitration.

(c) If the answer to either (a) or (b) is in the affirmative, have you already furnished a copy of either the partnership agreement or the general power of attorneys the case may be to CIFE (ICAR) Mumbai. Please quote the reference to the communication by which this was done.

N.B.: If of neither the partnership agreement nor the general power of attorney has previously been furnished to the CIFE (ICAR) Mumbai, please attach to the tendered copy of other documents on which reliance is placed for authority of partner or the partner or the partners signing the tender to refer disputes to arbitration. The copy should be attested by a notary public or its execution should be admitted by affidavit on a properly stamped paper by all the partners. If-Where authority to arbitration has not been given to the partner signing, the tender must be signed by every partner of the firm.

10. (FOR MANUFACTURING FIRMS)

- i) What is your installed capacity?
- ii) What is your working capacity?
- iii) What is the existing load?
- iv) What portion of your capacity are you prepared to reserve and allocate to this Rate Contract?

(FOR SOLE AGENTS/STOCKIST)

- i) What is your present stock?
- ii) What is the column of order (including Government and others) pending with you at present?
- iii) What is the rate of issue?
- iv) What is the rate of issue?

11. i) What stock you will maintain at each importance centre in India.

ii) What is the time and rate required for replenishment of the stocks at these rates?

12. Whether earnest money has been deposited? If so, the receipt No. Date & Amount deposited quoted.

Date _____

(Signature of Tenderer)



ICAR - CENTRAL INSTITUTE OF FISHERIES EDUCATION

(Deemed University), Indian Council of Agricultural Research

PanchMarg, Off Yari Road, Versova, Andheri (West), Mumbai-400061

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ANNEXURE TO SCHEDULE TO TENDER

(To be returned by Bidders along with the Tender duly completed and signed)

Name of Equipment: _____

Item No. : _____

| Sr.No. | Description | Qty. | Rate | Total |
|--------|-------------|------|------|-------|
| | | | | |

Gross total cost ` _____ (in figures) (` _____
_____ (in words).

We agree to supply the above goods in accordance with the Technical specifications for a total contract price (Including all taxes & Octroi, Transportation, Installation Freight charges, etc.) of ` _____

(in figures) (` _____

_____ (in words) within the period specified in the invitation for Quotations.

We also confirm that the normal commercial warranty/guarantee of _____ months shall apply to the offered goods.

(Bidder)

Name : _____

Signature : _____

Date : _____

Equipment Specifications

Item No. 1 : Muffle Furnace (EFC) - Retendering

Technical specifications

| | |
|--|---|
| Chamber Volume | 4.25 ltr |
| Range | Up to 1200 ⁰ C |
| Accuracy | + / - 3 ⁰ C of set Value |
| Heat up time | 60 min. upto 1200 ⁰ C without load |
| Controller | Digital Display Electronic Controller |
| Sensor | CR / AL Thermocouple |
| Internal Chamber | Silimenite muffle |
| External | Mild Steel Powder Coated |
| Insulation | Ceramic Wool |
| Heater Element | Kanthal A1 |
| Door brick insulation | HFK Bricks |
| Optional | |
| Safety device | Energy Regulator or Blind Controller |
| PID Control | Microprocessor based PID Controller |
| Timer | ON / OFF Cycle |
| Solid State Fuse | Electronic Solid State Fuse |
| Air Circulation | VenturyEjector at back as per A.S.T.M. |
| Electronic requirements AC 230 V & 50 Hz cycle | |
| Mention warranty period / AMC rates for a total period of two years. | |

Item No. 2: Air Blowers (EFC)

Technical specifications

- Motor capacity: 5 HP, 2880-3000 RPM
- Low Noise Level (65dba Normal, 85 dba Max.)
- Oil-Free Air
- Suitable for Environmental Protection
- No, Vibration
- Cooler running, double sealed
- Provided with inlet and outlet silencer/ filter
- Mention warranty period / AMC rates for a total period of two years.

Item No. 3: Feed Dryer (EFC)

Technical specifications

| | |
|-------------------|---|
| MOC Internal | Mild Steel Sheet Duly Painted With High Temperature Aluminium Paint |
| MOC External | Powder Coated Mild Steel Sheet |
| Heater | Tubular Air Heaters |
| Temperature Range | Ambient 5°C - 200°C |
| Circulation | Forced Air Circulation By ¼ / ½ HP Motor & Axial Flow Fan |
| Insulation | Mineral Wool |
| MOC Trays | Aluminium |

| | |
|--|---|
| Drip Tray | Mild Steel Painted |
| Door Gasket | Asbestos Packing Door |
| Safety Device | Thermostat |
| Power Supply | 220/230V Or 400/430V, 3 Phase A.C. Supply |
| Inner Size (WxHxD) | 965 x 1275 x 1450mm |
| Tray Capacity | 12 |
| Heater Load | 4.0 KW |
| Temperature Controller | Microprocessor Based PID Digital Temperature Indicator-Cum-Controller |
| Electric Supply | 220/230V Or 400/430V, 3 Phase A.C. Supply |
| <ul style="list-style-type: none"> • Mention warranty period / AMC rates for a total period of two years. | |

Item No. 4: Flame Photometer (Replacement) - Retendering
Technical specifications

- Microprocessor Flame Photometer (2F) with Sodium (Na) & Potassium (K) Filters, Auto 5 Point Calibration
- Additional Filters Calcium (Ca) & Lithium (Li)
- Direct Readout in ppm & Meq/l
- Auto Filter Selection
- Auto Ignition, 20x4 Line
- Single Aspiration
- PC interface, Printer Attachment Facility.
- With compressor and other accessories for lab use.
- 20 x 4 Alphanumeric backlit LCD display
- LPG dry oil free flame system
- Silicon photodiode detector
- Axial flow type atomiser
- Air supply by oil free mini compressor unit with pressure regulator
- Combustion gas LPG controlled by precision regulator
- Software for computer interface
- Mention warranty period / AMC rates for a total period of two years.

Item No. 5: Water Bath (Replacement)
Technical specifications

- Constant temperature water bath
- Temp. range: 5 °C above ambient to 100 °C.
- Temp. control: Digital
- Insulation: Glass wool
- Inner chamber: S.S
- Outer: S.S
- Heater: S.S. immersion heater
- Circulation: Circulatory pump with shaker/ stirrer

- Capacity: 20-30 lit.
- Mention warranty period / AMC rates for a total period of two years.

Item No. 6: RO Treatment Plant 300 LPH (SDAE)

Technical specifications

1. Pressure Sand Filter – FRP (12” x 48”) 500 LPH capacity (vertical)
2. Activated Carbon Filter - FRP (12” x 48”) 500 LPH capacity (vertical)
3. Cartridge Filter – FRP (4” x 20”) 1.5 M³/Hr (2 nos)
4. Micro-carbon Filter - PP (4” x 20”) 1.5 M³/Hr (2 nos)
5. Polishing Cartridge Filter - PP (2” x 20”) 1.0 M³/Hr
6. SS Pump (VCMS) – 2.0 HP (12 KG / CM²) 1.2M³/Hr.
7. Pressure Tube – SS (4” x 82”)
8. RO Membrane – TFC POLYAMIDE (4” x 40”) Filmtec, USA
9. Digital TDS Meter – 0 – 200 µS / CM (4 digit)
10. Analogue Pressure Gauge – 0 – 20 Kg / CM² (4 nos)
11. High Pressure Switch – 1 no
12. Low Pressure Switch – 1 no
13. Pressure Control Valve – 1 no
14. Auto Flushing Switch with Solenoid Valve – 1 no
15. Powder coated Electrical Panel Box – 1 no
16. Powder coated Skid Frame – 1 no

The **End Water** quality shall be achieved subjected to:

- Feed quality is same as specified in your enquiry. In case of any change in the quality of raw water, the same may have an implication on the operating parameters and End- water quality of the system.
- Feed limiting condition mentioned in our offer is strictly maintained.
- Operation of Water treatment plant is strictly followed in totality as per our operating manual & instructions.
- Mention warranty / AMC rates for a total period of 2 years.

Item No. 7: Water bath (EFC)

Technical specifications

- Table top shaking water bath with lid.
- Double layered stainless steel body
- Temperature range ambient to 80 degree (10-80 degree +/- 1)
- Should have digital display for setting of timer, shaking speed control, temperature control
- Noise free shaking and heavy bottom for avoiding vibrations and movement of the water bath on table
- Adaptor for 50 ml, 250ml and 1 liter flasks
- Capacity 14 L+
- Provision for water draining
- Mention warranty period / AMC rates for a total period of two years.

Item no. 8: Upright microscope

Technical specifications

- | |
|--|
| <ul style="list-style-type: none"> • Upright binocular Research Microscope with transmitted light side on top of binocular head • Illumination halogen 6 v/30 watt |
|--|

| |
|--|
| • 2-step focus drive coarse & Fine adjustment |
| • Objective nosepiece for 4 positions |
| • Preset Condenser with BF and N.A. 0.90/1.25 |
| • X/Y mechanical stage |
| • Eyepiece pair 10x/20 or better – focusable & adjustable |
| • Immersion Oil |
| • Optical system should be Infinity colour corrected. Objectives for 10x, 20x, 40x & 100x (oil). |
| • Dust cover for the complete set |
| • Mention warranty period / AMC rates for a total period of two years. |

Item No. 9: Tissue Homogenizer (Replacement)

Technical specifications

- Processing range : <200µL to 100mL
- Probes : stainless steel
- Power Rating : ~125 watt
- Speed Control : Variable from 5,000-35,000rpm
- Sound Level : < 72 db.
- Warranty : One year motor warranty
- Standards Approval : CE approved
- Sterilizable dispersing elements/probes for the entire operating range
- The company should have provided the equipment to at least 5 reputed Institutes
- Mention warranty period. Also provide AMC rates for additional 1 year if applicable.

Item No. 10: Incubator Shaker with digital temperature and day length settings

Technical specifications

- Temperature Range : 15°C to 50°C
- Accuracy @37°C : ±0.1°C
- Uniformity @37°C : ±0.5°C
- Temperature Controller: Microprocessor PID Controller
- Rpm : 30 to 300rpm
- Tray Size : ~ 450x450
- Orbit : ~ 25mm
- Deviation: ± 1 % set value
- Motor: Induction Brushless Motor
- Drive :Ac Variable Frequency Drive
- Shaking Mechanism: Quadra Drive
- Illumination: LED Tube Light with Individual controlled Switch and 24Hrs Digital Timer; 5000 Lux
- Outer Chamber :MS Powder coated
- Inner Chamber :SS
- Heating System: Potent Air Heating System
- Safety: Circuit Breaker and Over Temperature Protection
- Outer Dimensions : (WxDxH) ~560x640x1000mm
- Power: 220v-230v, 50Hz
-

Features:

- A compact Table Top and worktable System
- Insulated Thermal Glass window for Viewing sample without opening the door

- The Shaking Quadra Drive System is Connecting & holding the 4 sides in Moving Tray with a help of Self Aligned Counter Balance System which is healthier support comparing Other Eccentric System...
 - Brushless Powerful AC Induction Motor Connected with a Non slip V Belt Drive system for Soft start & stop at the time full load
 - The Moving Top Plate Connected with 4nos of Self Aligned Sealed lubricate Bearing with a Housing system which is not deviated the desired amplitude 25mm in Complete range of desired speed range of 30-300rpm
 - Integral Surge Protected PID Microprocessor for Better Accuracy and Controlling 3way Alarm system for AL1& AL2 with CL Mode
 - Increase and Decrease the Temperature set points through soft key pad system
 - Inherent grade 100 Platinum Elements PT100 for Measuring Chamber Temperature
- Mention warranty period / AMC rates for a total period of two years.

Item No. 11: Field Oxygen and pH meter

Technical specifications

- Water proof portable unit with all accessories including probes.
- pH measurement with a range of 0 to 14
- Dissolved oxygen measurement range 0 to 20 ppm
- LCD display
- Equipped with battery
- Equipped with temperature correction
- Carrying case
- PH buffer solutions
- Mention warranty period / AMC rates for a total period of two years.

Item No. 12. Tray packer (ABM Project)

Technical specifications

- Semiautomatic tray sealing machine designed for close and seal thermally plastic (Polystyrene/PP/PS) and thermocol trays with aluminum foil and film.
- Compatible to work on many sizes of trays – exchangeable sealing mould.
- Accurate digital temperature controller
- Suitable cutting tool for cutting the film
- Having provision for loading of film/aluminium roll
- With free different size of trays (atleast 500 each) and packaging film rolls (10 rolls)
- With batch coder (minimum 4 lines)
- Mention warranty period / AMC rates for a total period of three years.

Item No. 13: Pulveriser/Grinding mill (EFC)

Technical specifications

- Scale: Small scale for laboratory and gives a better indication of production process capability
- Capacity/Power: 1 to 2 HP electric motor with production capacity of 5-10 kg/hrs
- Process type: Mills or crushes size reduction of dry solids agricultural grains.
 - Continuous/semi-continuous process of the materials
- Equipment type: Cone / Gyrotory Crusher/ Screen Mill / Hammer Mill/ other
- Screen no: 0.17 mm to 0.8 mm which can grind wheat, soybean, oil cakes, maize and other agricultural grain to the desired size
- Hoppers: 1 to 3 hoppers suitable for grinding of the grains& oil cake

- Rotors: Rotor having 4 to 8 arms directly couple with 1-2 HP electric motor
- Mention warranty period and further AMC rates for a total period of two years.

Item No. 14: Small scale sinking fish feed pelletizer (EFC)

Technical specifications

- Small scale feed pelletizer driven by electric motor which makes it more energy-saving and environmental friendly.
- Simple to operate and spare parts easy to change and equipped with high quality alloy steel roller and die by advanced craft.
- Electric motor power: up to 2HP
- Pelleting diameter: 1.5 to 6 mm for different kind of fishes and can make according to preference with providing extra pelleting die of different range
- Capacity (kg/hr): 5 to 10 kg capacity of pellet diet production
- Electric motor rotation: 800-2000 RPM
- Mention warranty period and further AMC rates for a total period of two years.

Item No. 15: Respirometer

Technical specifications

- The system should have up to 650 ml chamber.
- Temperature probe for the water bath
- Flow-through DO
- Dissolved Oxygen Electrode Amplifier
- Three-way valve to switch between flush and circulation
- Liquid Pump (1 L/min max)
- Digital Control Unit (DCU) for control of 3-way valve
- Data Acquisition Interface
- Absolute Pressure Sensor
- Required reagent
- Any other parts except reagents to be replaced free of cost during warranty period.
- If accessories are there, it must be mentioned with the main document in inclusion.
- Mention warranty period / AMC rates for a total period of two years.

Item No. 16: D. O. Meter (EFC)

Technical specifications

- Accuracy: DO: $\leq 0.5\%$ (± 1 digit)
- Calibration Curves Display: Slope and assymetry potential displayed
- Dimensions (H x W x D): 38 mm x 73 mm x 186 mm
- Display: Backlit LCD with pictograms
- Display Type: 128 x 64 pixel, simultaneous readings
- DO Measurement Range: 0 to 60 mg/L
- DO Resolution: 0.01 mg/L depending on measurement range
- DO sensor calibration: 1 to 2 point, saturated air, 0% DO
- Mention warranty / AMC rates for a total period of two years.
- Delivery at Powarkheda, M. P. Please mention freight charges, taxes as applicable.

Item No. 17: Rotary Vacuum evaporator

Technical specifications

- Mention warranty / AMC rates for a total period of 2 years
 - Driving unit: Induction Motor with electronic speed control
 - Condenser: Vertical Double spiral glass coil
 - Drive unit: Motorized drive unit
 - Jack up Function: for lifting of the flasks
 - Rotation speed: 280-300 rpm with microprocessor control
 - Display: Digital display of rotation speed and heating bath
 - Evaporating flask from 50-4000 ml can be used on the same joint adapter without additional connection.
 - Vacuum seal: PTFE seal (should be covered in standard warranty period of three year)
 - Liquid contact parts: Glass & PTFE
 - **For Water bath:**
 - Temperature control range: Ambient to 210°C or higher
 - Accuracy: $\pm 1^\circ\text{C}$
 - Bath Features: Inner Teflon coating and outer heat resistant cover
 - Bath Capacity: should be between 4-5 L
 - Bath diameter: 250-300 mm
 - Vapor temperature sensor
 - Temp. controller: microprocessor based PID control
 - Safety features: overheating protector, auto cut off at 5°C secondary over temperature cut off 250°C
 - **For vacuum pump:**
 - Two stage oil free diaphragm pump made from chemically resistant material
 - Suction capacity in m^3/hour : 2.0 m^3/hour or better
 - Vacuum pump should have ultimate vacuum of 7m bar or better
 - Power input in watt: 180
 - Supply voltage (V/Hz): 230/50

Item No. 18: Electrophoresis Unit

Technical specifications

| Sr. No. | Technical specification | Requirements |
|------------|--|---|
| 1.0 | Application: Electrophoresis is a technique used for the separation of deoxyribonucleic acid, ribonucleic acid, or protein molecules using an electric current applied to a gel matrix. It is usually performed for analytical purposes, and will used as a preparative technique prior to use of other methods such as PCR, DNA sequencing etc. | |
| 2.0 | Instrument Composition | |
| 2.1 | Horizontal Electrophoresis Unit for DNA | Two numbers |
| 2.2 | Vertical Electrophoresis Unit for Protein | Two numbers |
| 2.3 | Power Pack supply | Two numbers |
| 3.0 | Specifications for Horizontal Electrophoresis Unit for DNA | |
| 3.1 | Main Unit | Single mould buffer tank with separate lid |
| 3.2 | Gel tray | UV Transparent |
| 3.3 | Gel Size | ~7 X 10 cm with provision for fitting 2 combs |
| 3.4 | Gel Caster | Adjustable for multiple gels |
| 3.5 | Hand casting | Multiple options for hand casting gels of different sizes |

| | | |
|------------|---|--|
| 3.6 | Combs | ~12 well comb (set of 2) |
| 3.7 | Safety certificate | IEC 1010 (EN 61010) Electrical safety certification. |
| 4.0 | Specifications for Vertical Electrophoresis Unit for Protein | |
| 4.1 | Complete unit with lower and upper tanks having platinum electrodes and gel casting arrangement, clamps and leads | |
| 4.2 | Gel Capacity | No of gels 2 |
| 4.3 | Glass plate size | ~10 x 10 cm with comb for ~ 12 wells. |
| 4.4 | Spacers | 1 mm and 1.5 mm spacer and comb sets |
| 5.0 | Specifications for Power Pack | |
| 5.1 | Volts | 0-300 V |
| 5.2 | Current | 0- 400mA |
| 5.3 | Power | 75 W or more |
| 5.4 | Type of out put | Constant current, Constant Voltage options |
| 5.5 | Timer | 1- 20 hrs |
| 5.7 | Power settings | Programmable |
| 5.8 | No of out put | Compatible with both electrophoresis |

- Mention warranty period / AMC rates for a total period of two years.

Item No. 19: Autoclave Vertical

Technical specifications

| Sr. No. | Technical specification | Requirements |
|--|-------------------------|--|
| 1.0 | Technical: | Fully automatic vertical autoclave, suitable for sterilization under working steam pressure up to 15 PSI or more and temperature of 121° C or more. |
| 2.0 | Design: | Unit made of SS 304 chamber, approx inner dimensions 16'' to 25'' (diameter x depth). Lid made of heavy gauge lid, die pressed S.S.304 with pressure gauge, steam release valve & necessary Safety valves, with foot lifting arrangement to open lid, programmable, with all functional accessories. |
| 3.0 | Capacity: | 70 to 80 Litre |
| 4.0 | Display: | Time and temperature LCD display Alarm: Low water level alarm and cut off / Sensor open alarm |
| 5.0 | Accessories: | Perforated carriers made up of SS 304 (3-4 Nos.) |
| 6.0 | Power Supply: | 220/230 volts AC-50 Hz or Suitable power supply |
| Mention warranty period / AMC rates for a total period of two years. | | |

Item No. 20: Electronic Balance

Technical specifications

| Sr. No. | Technical specification | Requirements |
|---------|-------------------------|---|
| 1.0 | Technical: | Single pan Analytical Balance with highest accuracy for weighing processes; readouts to have at least four decimal places. Equipped with a draft shield chamber to eliminate interfering ambient effects. |

| | | |
|--|------------------------|--|
| 2.0 | Weighing Range: | 0.015 mg upto 60 gms. and 0.025mg above 60 gms |
| 3.0 | Readability: | 0.1 mg or better |
| 4.0 | Calibration: | External |
| 5.0 | Display: | LCD Display |
| 6.0 | Verification interval: | 0.001 g |
| 7.0 | Pan Size: | 80 - 100 mm |
| 8.0 | Power Supply: | 210-240V/50-60 Hz |
| <ul style="list-style-type: none"> • Mention warranty period / AMC rates for a total period of two years. | | |

Item No. 21: pH and Conductivity meter

Technical specifications

| Sr. No. | Technical specification | Requirements |
|---------|--|---|
| 1.0 | Display Range | 0.00 to 14.00 pH |
| 2.0 | Resolution / Accuracy | ±0.005 pH |
| 3.0 | Calibration | 5 point calibration |
| 4.0 | mV Range | 999.9 . +999.9 mV; -1,999 ... +1,999 mV |
| 5.0 | Resolution / Accuracy | - 0.1 mV / ±0.3 mV (± 999.9 mV); 1 mV/ ±1 mV (beyond ± 999.9 mV) |
| 6.0 | Conductivity | 0.0 µS/cm ... 500 mS/cm in 5 measuring ranges or AutoRange additionally for K = 0.1 cm ⁻¹ : 0.00 µS/cm ... 19.99 µS/cm K = 0.01 cm ⁻¹ : 0.000 µS/cm . 1.999 µS/cm |
| 7.0 | Specific resistance | 0.000 ... 1999 MΩcm |
| 8.0 | Cell constants | Theoretically 1.0 (Provide NIST traceable certificate) |
| 9.0 | Salinity Range | 0.0 to 70.0 (according to IOT) |
| 10.0 | Temperature Range | : - 5°C to 105°C |
| 11.0 | Resolution / Accuracy | 0.1°C/± 0.1°C |
| 12.0 | Temp. Compensation | Automatic |
| 13.0 | Reference Temperature | Selectable between 20 & 25°C |
| 14.0 | Data Output | Via display and USB Port |
| 15.0 | Power Supply | Mains 230 ± 10 volts, 50 Hz, AC power and 4 x 1.5 Volt Rechargeable AA batteries |
| 16.0 | Protection Type | IP67, IP 67 |
| 17.0 | Warranty | 3 years on instrument & 1 year on electrodes. |
| 18.0 | Internal Diagnostics / Self Test Facility | Yes |
| 19.0 | Splash Proof Housing | Yes |
| 20.0 | Display | LCD , also display condition of Electrode |
| 21.0 | Simultaneous Temperature & pH Display | Yes |
| 22.0 | Membrane Keyboard with pressure defined points | Yes |
| 23.0 | Memory Data Sets 800 GLP Supports Functions | Yes |
| 24.0 | Calibration Protocol | Yes |
| 25.0 | USB Port | Yes (To attach normal printer & PC) |
| 26.0 | Limit Value Settings | Yes |

| | | |
|--|---------------------------------|--|
| 27.0 | Printer Option | Yes (Thermal Printer not accepted) |
| 28.0 | Sensor Validation | Yes |
| PH Electrode Specifications | | |
| 1.0 | Measuring Range | 0....14pH |
| 2.0 | Operating range (Deg C) | 0...80 |
| 3.0 | Reference Electrolyte | Gel with one year replacement warranty |
| 4.0 | Membrane Shape | Cylindrical |
| 5.0 | Membrane resistance at 25 Deg C | < 1Gohm |
| 6.0 | Diaphragm | Ceramics /Glass |
| 7.0 | Shaft Material | Noryl / Epoxy |
| 8.0 | Temperature Sensor | built in NTC |
| Conductivity Electrode Specifications | | |
| 1.0 | Electrode Material | Graphite |
| 2.0 | Shaft Material | Epoxy |
| 3.0 | Cell Constant | K = 0.475 /cm |
| 4.0 | Measuring Range | 1 uS/cm to 2S/cm |
| 5.0 | Temperature Range | 0 100 Deg C |
| 6.0 | Min./Max. Immersion Depth | 36/120 mm |
| <ul style="list-style-type: none"> • Mention warranty period / AMC rates for a total period of two years. | | |

Item No. 22: Student microscope

Technical specifications

Compound Microscope – 1 No

- Body: Binocular, sturdy, stable base body with focus adjustment controls.
- Eye piece: Paired, high quality, (the image of the object as seen through the binocular eyepiece should be well defined centrally in at least 2/3 field of view), achromatic, wide field, 10x with inbuilt pointer. The eyepiece should be aplanatic and have a minimum field number of 18 Diopter adjustment must be present on one/ both eye pieces or on the eye piece tube.
- Optical system should be infinity corrected.
- System complete with illumination system is required.
- Objective: Three objectives 10x, 40x, 100x. 10x and 40x objectives should have numerical apertures of 0.25 and 0.65 respectively and should be of spring loaded type or otherwise. 100x should have numerical aperture of 1.25 and should be of oil immersion and spring loaded type. Suitable prominent marking should be provided on 100x for easy identification. Unbreakable containers to be provided for storing the objectives. All objectives should be wide field, achromatic and parfocal.
- Making for the Objectives :Each objective should be engraved with the following information's :-
 - Name of the manufacturer
 - Magnification and numerical aperture, for example, 10x/0.25
 - 100x objective should be engraved with the word 'Oil' in changing from one objective to another or reintroducing the same objective by rotation of the nosepiece, the object at the center of the field should not appear displaced by more than 0.02 mm in the object plane in any direction.
- Nose piece: Revolving nose piece to accommodate a minimum of three objectives with click stops. It should be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment. Extra ports if any should be fitted with dust proof metallic/ebonite caps.
- Stage uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine vernier graduations (minimum reading accuracy of 0.1 mm). The stage should be provided with

spring loaded slide holder for exact positioning of specimen/ slide. It should be designed with convenient sub-stage vertical coaxial adjustment for slide manipulation. The stage should have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/- 5mm).

- Sub-stage condenser: Abbe-type condenser, numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating a spherical lens and an iris-diaphragm. The condenser should have a filter holder and removable/ swing in/ out blue filter (suitable for bright field Microscopy).
- Sub-stage illuminator:
 - The system should have a build-in variable lightsource (Illuminator). This light source should have a 20 W, 6 V Halogen lamp. The circuitry for the light source should include a constant voltage supply.
 - The system should be provided with a step down transformer and an on-off switch and intensity control. The lamp should be provided with a lamp socket which has the facility for easy replacement of the bulb,
- Power supply: Voltage 220 V AC, 50Hz. should have one on-off power switch, 3 core power cord with a 3 point male plug.
- The system should have an inbuilt protective/safety device to withstand fluctuations of voltage from 140 V to 280 V.
- A plano-concave mirror in fork mounting should be supplied which would be attachable to the base for field use when power is not available.
- The fuse for the halogen lamp should be easily accessible to the operator
- The Illuminator should have a build-in field diaphragm for Kohler illumination.
- Eye piece tubes: Binocular eye piece tubes, inclined at 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range.
- Focusing knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement should have sensitivity of two microns or less (finer) over the entire coarse focusing stop safety arrangement should be provided.
- General:
 - All optical parts including objectives, eye pieces and prisms should have anti-reflective coating which also gives anti-fungal property.
 - All metallic parts should be corrosion-proof, acid proof and stain-proof.
 - Working manual should be provided with each microscope.
 - A bottle of at least 25 ml immersion oil, a roll of lens tissue paper and lens cleaning solution (100 ml) should be provided with each microscope.
 - One anti static cleaning brush should be provided with each Microscope for cleaning purpose.
- Microscope should be supplied with all spare parts including Fuses.
- All consumables required for installation and standardization of system and microscope cover to be given free of cost.
- The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%.
- Should be FDA or CE or ISI approved product.
- Three years warranty, 5 yrs comprehensive AMC should be available with service centers in close proximity.
- User/Technical/Maintenance manuals to be supplied.
- Certificate of calibration and inspection from factory.
- List of important spare parts and accessories with their part number and costing.
- Mention warranty period / AMC rates for a total period of two years.

Item No. 23: PCR machineTechnical specifications

| | |
|--|--|
| Power requirement | 200-220 V, 50 Hz |
| Block | Universal block for 96X0.2 ml tubes and strips, 1X96 well plate. |
| Heated lid | 110°C |
| Number of programs | Minimum 300 |
| Default (inbuilt) programs | 2 step PCR, 3 step PCR, touch down, hot start, RT-PCR, ligation |
| USB ports | At least one |
| Display | VGA, touch screen preferred. Real time display actual block temperature. |
| Average Ramp rate | 5°C or higher preferred. |
| Temperature range | 4-99°C |
| Block temperature accuracy | ±0.2-0.4°C |
| Auto-restart facility after power failure | Required |
| Memory | 500 minimum, in built |
| | |
| Thermal gradient | Upto six different annealing temperatures. |
| Gradient range | 40-99° C |
| Instant incubation program | Required |
| <ul style="list-style-type: none"> Mention warranty period / AMC rates for a total period of two years. | |

Item No. 24: Microcentrifuge (Project #1008350)Technical specifications

- Maximum speed 14000 rpm
- LCD display showing speed & time
- Microprocessor controlled
- Capacity 12X1.5/2.0 ml tubes. If higher capacity is possible, rotor prices should be included
- Short spin key
- Time setting- upto 60 min
- Should include standard rotor
- Time to reach maximum speed – 15 sec
- Brush less motor, quiet operation
- CE certified
- Mention warranty period / AMC rates for a total period of two years.

Item No. 25: Storage cabinet/refrigerator (2-8°C)Technical specifications

- Capacity : 200-400 Liters approx.
- Temperature range: +1 to +10°C
- Self-closing door
- Temperature control: Digital temperature control
- Shelves: Minimum 3 shelves
- Construction: Heavy duty construction with castor wheels
- Display: Digital display of temperature.
- High/low temperature alarm
- Insulation: High density, fluorine free insulation
- Power requirements: 220V, 50Hz
- Interior fan for air circulation

- Ecofriendly refrigerant
- Stabilizer of suitable capacity should be provided
- Mention warranty period / AMC rates for a total period of two years.

Item No. 26: Hot Air Oven (EFC)

Technical specifications

Power: 230V, 50Hz single phase AC supply and having temperature ranging between 50-200°C

Structure: Should be made of double walled chamber -Inner made of stainless steel and powder coated outer surface.

Heating elements: Should provide uniform temperature on all shelves.

Fan: Should be provided with air circulating noise less fan.

Digital display: microprocessor based digital temperature controller with digital display and thermometer should be provided separate

Size: Should have a minimum chamber size of (L*B*H) 450*450*450 with 2 stainless steel trays with holes. Should provide with air ventilations.

Even heat distribution

Over heating protection system should be provided.

Mention warranty /AMC rates for a total period of 2 years.

Item No. 27. Dehumidifier

Technical specifications

Dehumidifying performance: Upto 105 Litre per Day @ saturation

Area covered: Atleast 1050 sq ft.

Air circulation rate: Minimum 900m³/h airflow

RH to be maintained: 45 + 5 % RH

Defrost cycle: Sensor controlled thermodynamic

Operation range: 1° to 38⁰C

Air filter: HAF antimicrobial filter

Compressor: Rotary and CFC free

Dehumidistat control: Digital timer with auto restart

- Mention warranty period / AMC rates for a total period of two years.

Item No. 28: High speed refrigerated centrifuge (Miscellaneous under EFC)

Technical specifications

Speed 14,000-15,000 rpm (18,000-21,000 g)

Temperature range -10 °C to ambient, CFC free refrigeration

Sample temperature < 4 °C at maximum speed

Centrifugation volume/Rotor 50 ml×8 or 85 ml ×6 capacity, fixed angle rotor (rotor included) with adapters for 15 ml tubes.

Swinging bucket rotor for 4 x 200 mL OR 4 x 400 mL capacity of similar volumes

Control system Micro-processor control (Brushless motor)

Rotor identification Automatic, should have imbalance detection system

Display Digital display of speed, RCF, time and temperature

Setting Digital setting

Alarm display Imbalance, lid open, high temperature, over speed

Programs Minimum 25 user defined programs

Pulse/short run Required

Lid Auto opening at the end of centrifugation

| | |
|--|--|
| Centrifugation chamber | Stainless steel, corrosion resistant |
| Certifications | CE marked, biosafety certified, requirements of IEC |
| 1010-2-020 safety | |
| Acceleration / Deceleration Rates | 9/10 |
| Changing of rotors | Rapid mounting or removal of rotor without the use of 1 tool |
| Stabilizer | Appropriate stabilizer should be included in the quote |
| <ul style="list-style-type: none"> Mention warranty period / AMC rates for a total period of two years. | |

Item No. 29. Sonicator (EFC)

Technical specifications

- Type: Hand held and stand mounted.
- Power: 500-700 watts
- Probe: Steel/Titanium alloy
- Probes required: For volumes 10-250 ml, microtips probes for 0.25 ml-5ml and 5 ml-50 ml volumes
- Timer: 1 sec to 5 hours
- Pulser on/off: Minimum 1 sec
- Frequency: 20-30 kHz
- Amplitude control: output intensity control of 20-100% , automatic frequency tuning
- Overload protection: Required
- Programs: Storage of 10 programs. Should be able to run multiple programs in sequence.
- Display: Touchscreen, color digital display
- Operating voltage: 220-240 V, 50 Hz
- Accessories: Sound enclosure & lab jack, voltage stabilizer of suitable capacity
- Mention warranty period / AMC rates for a total period of two years.

Item No. 30: Water Vapour Permeability Tester (EFC)

Technical specifications

- Fully automatic with LCD display and embedded software.
- Working temperature: 5 –55 °C
- Number of specimens: 1-3
- Measuring Range: 0.01 -40 g/m²/day
- Vacuum pump, vacuum grease, sponge cushion & referencefilm should be supplied.
- Nitrogen supply cylinder of suitable volume including accessories such as pipe, valve & regulator should be supplied.
- Working Humidity range: 40 -90%
- Reproducibility: 1 – 5%
- Mention warranty period / AMC rates for a total period of three years.

Item No. 31: Oxygen Permeability Tester (EFC)

Technical specifications

- Automatic with LCD display with working software
- Working temperature: 5 - 55°C
- Measuring Range: 0.01-1000 cm³/m²/d
- Resolution: 0.01 cm³/m²/d
- Temperature range: 15°C-55°C
- Humidity range: 15%-90% RH
- Number of specimens: 1-3

- Nitrogen supply cylinder of suitable volume including accessories such as pipe, valve & regulator should be supplied. 0 -90%
- Accuracy: $\pm 2.5\%$
- Sample size: $\sim 100 \times 100$ mm
- Mention warranty period / AMC rates for a total period of two years.

Item No. 32: Digital Water Activity Meter (EFC)

Technical specifications

- Temperature Control : 15 to 50 °C
- Measurement Speed : < 5 Min
- Accuracy: ± 0.003 aw
- Resolution : ± 0.001 aw
- Range -: 0.030 to 1.000 aw
- Operating environment : 4 to 50 °C (39 to 122 °F)
- Relative humidity : 0 to 90% (non-condensing)
- Accessories required: Software, disposable sample cups, calibration standards kit (1.000, 0.984, 0.760, 0.500, and 0.250 aw), serial printer
- Mention warranty period / AMC rates for a total period of two years.

Item No. 33: Tray Sealing Machine 450 –230volts/ single phase

Technical specifications

- Constant Temperature Auto Cut auto Shrink, it is suitable for Packing Foods, and Fruit etc
- Applicable to Supermarket, Fast Food Shops.
- MAX SEAL WIDTH : 450MM
- TEMPERATURE : 160° C
- POWER : 300W
- DIMENSION : 64 x 52 x 18CM
- WEIGHT : 7.5KGS
- 1 NO. Wrapping Film Roll.
- With Food Tray (500Gm Capacity) -100 NOS
- Mention warranty period / AMC rates for a total period of two years.

Item No. 34: Muffle Furnace (EFC)

Technical specifications

- Internal Dimensions (Depth×Width× Height) in inches: 6×6×6 (minimum)
- Furnace body: Stain less steel
- Working temperature: 800-1000°C or above
- Heating element: Silicon carbide (SiC)
- Insulating material: Ceramic wool
- Temperature control: Microprocessor based PID control.
- Temperature settings: Digital, double display
- Temperature accuracy: $\pm 2^\circ\text{C}$ or better
- Power requirements: 220V, 50Hz single phase

Accessories to be supplied with the furnace: steel tongs (2 no.) & high temperature gloves (2 pairs)

- Mention warranty period / AMC rates for a total period of two years.

Item No. 35: Real Time PCR SystemTechnical specifications

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|---|--|
| Application | : Absolute and Relative quantitation : Simultaneous analysis of data for relative quantitation, multiplex-PCR, allelic discrimination (SNP), and dissociation curve analysis as well as pathogen detection. : Both SYBR Green and Taqman probe-based assays. |
| Hardware | : 96 well thermal cycling system : Temperature range of 4°C – 105°C : Provision for both 96 well plates and individual 0.2 ml PCR tubes |
| Thermal cycling/ Reaction volume | : Reaction volume 10-50µl : Universal thermal cycling conditions to eliminate optimization of PCR conditions |
| Excitation and Filters | : Five position fluorescence excitation and emission filters. : Should collect data for all 5 filters for all wells regardless of plate setup. : Provision to alter the plate setup after run completes. |
| Compatibility | : Provision to segregate multiple dyes Using software : Provision to add new dyes without any hardware change. |
| Software | : Dedicated licensed full version software for Taqman primer and probe design : Dedicated laptop for real time PCR operations. : Online UPS (5 KVA) of reputed brand. |
| Service | : Custom designed primer probes for absolute quantification, gene expression assays and genotyping assays |
| License | : The quote system must have full license for PCR process. : A copy of the license must be attached to the offer. |
| | <ul style="list-style-type: none"> • Mention warranty period / AMC rates for a total period of two years. |

Item No . 36: [Ultracentrifuge](#)Technical specifications

| | |
|-----------------------------------|---|
| Rotor | Fixed angle with tube size 20 - 30ml and Swinging bucket with 5-15 ml bucket size |
| Maximum speed (RCF) | Up to 5 lakhs depending on rotor |
| Speed control | ±50 rpm of set speed |
| Sample imbalance tolerance | Up to 10% of volume in opposite tubes |
| Set temperature range | 0 to 40°C with 1 °C increments |
| Refrigeration system | Solid state and no CFCs or ODCs |
| Temp control | ±2°C |
| Ambient operating range | 5°C to 35°C |
| Acceleration/Deceleration | Programmable profiles |
| Vacuum | Moisture-purging system |
| Voltage stabilizer | Compatible with the system |
| Accessories and adaptors | As per the rotors |

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| Model | Preferably Table top |
| <ul style="list-style-type: none"> Mention warranty period / AMC rates for a total period of three years. | |

Item No. 37: Microvolume Spectrophotometer (P)

Technical specifications

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|---|--|
| UV/Visible spectral range | 200- 1000 nm with 1 nm steps |
| Samples | 96- and 384-well plates & cuvette |
| Display | TFT VGA display |
| Power supply | 100-200 V, 50 Hz |
| Read out range | Upto 4 Abs |
| Operation | System should either be able to run in stand-alone mode using color display and keypad. Or computer-assisted operation. For computer-based operation, a suitable laptop computer should be provided with suitable software |
| Cuvette | UV quartz glass, or UV plastic material should be provided |
| Microvolume measurement | 2-10 µl |
| Light source | Xenon flash lamp |
| Spectral band width | <3 nm |
| Memory | 100 programs or more |
| Accuracy | 1-2% at 450 nm (0-2 Abs) |
| Lower detection range limit | 2 ng/µl dsDNA |
| System should be able to read absorbance spectrum in kinetic mode as well. System should be supplied with multiple license data analysis software for easy operation | |
| Stabilizer | Appropriate stabilizer should be included & supplied along with the machine |
| <ul style="list-style-type: none"> Mention warranty period / AMC rates for a total period of two years. | |

Item No. 38: -80°C Deep freezer (P)

Technical specifications

| | |
|---------------------|---|
| Temperature | -50 to -80°C with 1°C increments |
| Capacity | 350-500 L |
| Type | vertical |
| Display | Push button LED, Microprocessor based, temperature status, alarm system |
| Exterior | Corrosion resistant steel, powder coat painted |
| Interior | Atleast 3 internal compartments with latchable doors. |
| Insulation | Polyurethane foam |
| Inner & outer doors | Fitted with low temperature resistant silicone seal |
| Electrical | 220V, 50 Hz, low voltage surge protection & buck/boost |
| Features | CFC free refrigeration, low noise level |

| | |
|--|--|
| Battery backup | Needed. Should display temperatures during power outage. With built in data logging facility |
| Certification | CE certified |
| Storage racks | Appropriate number of suitable storage racks should be supplied along with machine |
| Security | Key lock system |
| Accessories | A pair of cryogloves and ice suitable ice scrappers should be provided free of cost |
| Stabilizer | Appropriate stabilizer should be included and supplied along with the machine |
| <ul style="list-style-type: none"> • Mention warranty period / AMC rates for a total period of three years. | |

Item No. 39: Bioinformatics workbench for next generation sequencing data analysis

Technical specifications

1. Hardware specifications
 - Processor: 2 x 8 Core Intel CPUs
 - RAM: 64 Gigabytes
 - Storage: 16 Terabytes (expandable)
 - Operating system: Linux 64 bit
 - Hardware: 3 years on-site warranty
2. Software specifications
 - Genomic server software with perpetual licence with 5 years maintenance, upgrades and support
 - Genomics workbench (2 static licenses) with necessary software for high-throughput sequencing data analysis including de novo assembly, transcriptome and metagenome data analysis
 - BLAST 2GO Pro Plug-in (1 floating license with 3 years validity)
 - Mention warranty period / AMC rates for a total period of three years.

Item No. 40: Blood Gas Analyzer (EFC)

Technical specifications

- The system should essentially measure pH, PCO₂ and PO₂, and preferably serum electrolytes like Na⁺, K⁺, Cl⁻
- It should essentially support lower sample volumes (less than 100 ul)
- System should use easy user interface systems like numeric keypad, graphic / LCD display, and/or inbuilt printer and RS 232 port.
- It should be able to operate without the help of any additional laptops and PCs.
- It should be able to analyse whole blood and should have syringe and capillary sampling
- Should have input parameters of patient Temperature, Hemoglobin FIO₂, patient ID etc.
- Should have a sample temperature control of 37 degree centigrade.
- Analysis time should not be more than 180 seconds.
- System should be based on liquid / gas calibration technology.
- System should not be a cartridge based system i.e. electrodes should not be in the cartridge system.
- System should be supplied complete with all standard accessories, electrodes & start up kits.
- Onboard life of reagents should not be less than one month.
- Should have an automatic calibration for all the measured parameters without the use of gas cylinder.

- Power input: 220 VAC + 10%, 50 Hz and a suitable one hr. back up UPS should be supplied along with analyzer. There should be storage facility of data in case of power failure.
- Maintenance free electrode and the unit should be upgradeability for auto quality control.
- Mention warranty / AMC rates for a total period of 3 years

Item No. 41: Bomb Calorimeter

Technical specifications

1. Microprocessor based isoperibol bomb calorimeter for rapid determination of gross calorific value of food/ feed ingredients/samples
2. The equipment should be compact, integrated and bench-top model with LCD display and compatible online UPS(Uninterrupted Power supply) backup support for one hour
3. The calorimeter should have adequate memory storage facility (Approx. 1000 tests) and should be easy to operate
4. Bomb & bucket : Removable type
5. Repeatability / Reproducibility: As Per BIS 1350 (Part -2), 1970, ASTM D-5865/04 & other International Standards
6. Oxygen Combustion Vessel (Bomb): Thick walled acid resistant having internal volume 250 to 350 ml made of high strength with proper insulation arrangement and capable of withstanding high pressure
7. Measuring range: 1000 to 8,000 cal or more per unit sample.
8. Temperature Measurement: with inbuilt high precision electronic thermometer
9. Temperature Measuring Resolution: 0.0001°C
10. Operator time per test: 6-8 minutes or less.
11. Range of Sample weight for energy estimation: 0.5 g – 1.5 g
12. Measurement Precision- 0.1% RSD
13. Equipment Resolution- 0.0001 Cal/g
14. Corrections-Operator selected option for correcting for Acid, Nitrogen, and Fuse wire, Sulphur, Moisture, Ash and Hydrogen
15. Gas filling arrangement-Suitable gas filling arrangements with regulator and gauges for line/vessel pressure and all necessary attachments.
18. Pellet press/device and other accessories required to run the instrument
19. Bomb has approval with PED (pressure equipment Directive)
20. Safe life of bomb vessel should be minimum 4000 test continuously
21. Additional software if any required being included for PC operation
22. Inbuilt USB interface/Ethernet port for Balance, Printer and computer
23. Analysis kit including fuse wire, standards, rings etc required for 1000 analysis along with crucibles for samples should be provided with the basic system.
24. Up gradation: Calorimeter should have a facility to upgrade with different types of bombs by simply plug in without changing the main calorimeter configuration.
25. Manufacturer should have international and or national approval for manufacturing pressure vessels
26. Pressure vessels must be tested as per ASTM or any international/national standards
27. Manufacturer should have CE certification
28. Guarantee-Warranty-The tenderer shall be fully responsible for the manufacturing warranty in respect of proper design, quality, workmanship of material for which these are indented for a period of 24 months from the date of installation and commissioning.
29. AMC rates for two years after warranty.

Item No. 42: Accelerated freeze drier (EFC)

Technical specifications

- Digital read-out of temperature

- Ultimate temperature at 20°C room temperature: $-55^{\circ}\text{C} \pm 2^{\circ}\text{C}$
- Power requirements: 230-240/50-60 V/Hz
- Power consumption: 300 to 310 W
- Insulation: 90 to 100 mm
- Condenser capacity :3 kg
- Condenser capacity per 24 hours: 2,5 kg
- Total volume of Condenser: 4L
- Weight net: 40-50 kg
- Cabinet dimensions (DxWxH):450x340x450 mm approx
- Cabinet material: Polyester coated steel
- Condenser material: Stainless steel AISI 316
- Cooling media: R 507
- Vacuum Valve: Manual, drain tap required
- Mention warranty period / AMC rates for a total period of three years.

Item No. 43: Texture analyzer (miscellaneous under EFC)

Technical specifications

| | |
|--|---|
| Choice of sensors | 50-500 N, Resolution 0.20 N (20 g) |
| Load cell | 5 kg & 50 kg |
| Probes | For puncture test, shear force, compression, penetration |
| Accuracy | +/- 0.05 % of the full scale |
| Speed range | From 0.1 to 10 mm/s +/-0.2 % |
| Motion | Height: 200 mm / Resolution: 0.05 mm |
| Temperature | Pt100 sensor to measure sample's temperature from -20 to 120 °C |
| Display | Touch screen |
| Supply voltage | 220 V, 50 Hz |
| PC connections | RS232 Port and USB |
| Printer connection | USB Host Port |
| Dimensions | L300 x W500 x H600 mm |
| Weight | Weight: 21 kg |
| Choice of sensors | 50-500 N, Resolution 0.20 N (20 g) |
| Load cell | 5 kg & 50 kg |
| Probes | For puncture test, shear force, compression, penetration |
| Accuracy | +/- 0.05 % of the full scale |
| Speed range | From 0.1 to 10 mm/s +/-0.2 % |
| Motion | Height: 200 mm / Resolution: 0.05 mm |
| Temperature | Pt100 sensor to measure sample's temperature from -20 to 120 °C |
| Display | Touch screen |
| Supply voltage | 220 V, 50 Hz |
| PC connections | RS232 Port and USB |
| Printer connection | USB Host Port |
| Dimensions | ~L300 x W500 x H600 mm |
| Weight | ~Weight: 21 kg |
| <ul style="list-style-type: none"> • Mention warranty period / AMC rates for a total period of three years. | |